BS EN IEC 60068-2-11:2021



BSI Standards Publication

Environmental testing

Part 2-11: Tests — Test Ka: Salt mist

bsi.

National foreword

This British Standard is the UK implementation of EN IEC 60068-2-11:2021. It is identical to IEC 60068-2-11:2021. It supersedes BS EN 60068-2-11:1999, which will be withdrawn on 7 April 2024.

The UK participation in its preparation was entrusted to Technical Committee GEL/104, Environmental conditions, classification and testing.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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European foreword

The text of document 104/888/FDIS, future edition 4 of IEC 60068-2-11, prepared by IEC/TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60068-2-11:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-01-07
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-04-07

This document supersedes EN 60068-2-11:1999 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 60068-2-11:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-52	NOTE	Harmonized as EN IEC 60068-2-52
ISO 8407	NOTE	Harmonized as EN ISO 8407
ISO 9227	NOTE	Harmonized as EN ISO 9227

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ENVIRONMENTAL TESTING –

Part 2-11: Tests – Test Ka: Salt mist

FOREWORD

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IEC 60068-2-11 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 1981. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the preparation of the salt solution has been modified;
b) the temperature of the solution for measuring pH has been modified;
c) the atomizing pressure and water temperature of the saturation tower have been added and are given in Table 1;
d) test report details have been modified;
e) examples of typical test apparatus have been added and are given in Annex A;

f) a method for evaluating corrosivity of the apparatus has been added and is given in Annex B;

g) a bibliography has been added.

The text of this International Standard is based on the following documents:

Draft	Report on voting
104/888/FDIS	104/892/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60068 series, published under the general title *Environmental testing*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

The object of the test specified in this document is to compare the resistance of electrotechnical equipment to deterioration from salt mist.

It is useful for evaluating the quality and uniformity of protective coatings.

The relationship between the deterioration provided by this test and long-term exposure of electrotechnical equipment to salt laden atmospheres cannot be readily determined. Consequently, the test cannot be reliably used to quantify the long-term aging of electrotechnical equipment. However, as the test commonly accelerates deterioration from salt mist, it does provide a useful means of comparing resistance of electrotechnical equipment to deterioration from salt laden atmospheres.

ENVIRONMENTAL TESTING –

Part 2-11: Tests – Test Ka: Salt mist

1 Scope

This part of IEC 60068 specifies a test method for assessing the corrosion resistance of electrotechnical products components, equipment and materials in a salt mist environment. Its objective is to verify that the comparative quality of a metallic material, with or without corrosion protection, is maintained when exposed to salt mist.

This test method is useful for evaluating the quality and the uniformity of coatings applied to protect metals against corrosion. It is particularly useful for detecting discontinuities, such as pores and other defects, in certain metallic, organic, anodic oxide and conversion coatings.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 General

WARNING – This document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

For equipment and components, Test Kb (IEC 60068-2-52) is considered to provide more realistic conditions and to provide means of assessment of individual items. If, however, for particular circumstances, the relevant specification requires this test (Ka) to be applied to individual specimens for qualification purposes, then the specimens should be tested as part of the overall assembly or equipment in which they are to be used and be completed with any protection devices (cases, covers, shields, etc.), as in practice.

NOTE 1 "Salt mist" is also called "salt spray".

NOTE 2 The test specimen(s) is typically not energized during the test.